Claims 1-63 are pending. Independent claim was rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu (US005883901A) in view of Burke (US006233235), Sawyer (US006765925), and newly cited Hillman (US006522265). Independent claims 11, 23, 28, 38, 45, and 54 were rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu (US005883901A) in view of Burke (US006233235), and newly cited Hillman (US006522265).

Chiu describes a Signal Conversion System (SCS) connected to a cable modem. The Signal Conversion System (SCS) uses the Disable/Enable Cable Modem Request subframe type "to turn on and off a particular cable modem 113. The subframe type is 0x03 for Disable and 0x05 for Enable. The Disable/Enable CM subframe is a six-byte MAC modem address field that uniquely identifies the particular CM 113 the frame is directed to." (Col 12, Lines 45-51) The Examiner notes that "Chiu does not disclose disabling the cable modem for periodic intervals separated by activation windows."

Burke describes an alert system. "The alert phase 166 as provided in accordance with the alert queue 60, creates an alert time phase based on the group number N, and then sends the alert phase to the subscriber unit 16,18. A trap 168 is provided in connection with the CMTS operating logic in order to filter all messages destined for registered subscriber units 16, 18. The filtering operation provided by the trap 168 traps out telephony start/alert messages, and queues up such messages in the alert phase bins 0-127 of the alert queue 60. A master clock 170 is provided for the communication system 10 in order to provide precise timing intervals based on the wake times and the number of groups N, and thus master clock signals are generated using the alert messages. If the alert phase bin number contains one or more messages, a Group Alert message is transmitted to the subscriber units, which is received by the subscriber unit operating logic Group Alert decision block 152. The subscriber units 16,18 receive the queued messages from the CMTS 26, which are received for communication between the CMTS 26 and subscriber units 16,18. If no messages are contained in the present alert phase bin, however, then no Group Alert message is generated from the CMTS 28, and accordingly the alert queue 60 proceeds to the next phase bin in accordance with the master clock timing intervals." (column 8, line 64 – column 9, line 20)

Sawyer describes a technique for "maintaining state information for a network device changing from a first channel (in communication with a first base unit) to a second channel (in communication with a second base unit) communicates with at least one of the first base unit and an intermediate network device to ascertain the state information. Once the state information is ascertained, it is applied to the communication of the network device with the second base unit. Both the first and second base units are independently operable network devices in a data transmission network." (column 2, lines 46-55)

Chiu, Burke, and Sawyer even if appropriately combined do not teach or suggest varying activation window length. Furthermore, none of the cited references teaches or suggests changing activation length based on drift. None of the references teaches or suggests varying based on drift between a cable modem clock and a headend clock. The independent claims recite wherein "wherein activation window length is varied based on drift between a cable modem clock and a headend clock." The specification describes a variety of ways activation window lengths can be determined. For example, according to particular embodiments, the periodic intervals and activation windows can be preconfigured, and the unicast SYNCH message would not need to carry information on periodic interval and activation window lengths." (page 14, lines 5-8) The activation window length can be varied based on drift. "The periodic interval and activation window lengths can vary based on the drift between the clock of the headend and the clock of the cable modem. The SYNCH messages typically synchronize the clocks of these two network elements. A longer periodic interval may require a longer activation window because of the drift in time between the two clocks. A longer periodic interval may require the headend to receive and queue more data destined for a cable modem with disabled receiver circuitry." (page 15, lines 3-9)

According to particular embodiments, "The activation windows indicate how long the receiver circuitry should be enabled between these periodic intervals to allow the cable modem to receive unicast SYNCH messages. SYNCH messages synchronize the clock of the cable modem with the clock of the headend and instruct the headend to enable the receiver circuitry of the cable modem. The headend can enable the receiver circuitry of the cable modem when the headend has received and queued data destined for the cable modem with disabled receiver circuitry. For example, the periodic intervals can be 10 seconds while the activation window can be 100 milliseconds." (page 14, lines 10-18)

It is respectfully submitted that even if there is sufficient motivation to combine Chiu with Burke and with Sawyer, the combined references do not describe all of the elements of the independent claims.

Consequently, the Examiner relies on a fourth reference, the new reference Hillman, to describe an activation window length that is varied based on drift between a cable modem clock and a headend clock. However, as the Examiner notes, Hillman does not describe any cable modem clock nor any headend clock. In fact Hillman does not describe any cable modem network at all. Hillman describes a GPS receiver and a cellular receiver in a vehicle in a nonanalogous art area. The Examiner is believed to be relying on a four way combination of references including a reference that has little to do with cable modems. Hillman describes a vehicle tracking and security system. "During the wake-up window, a monitoring center can call the vehicle 10 and, if necessary, unlock the vehicle doors, flash the vehicle lights, honk the vehicle horn, update a clock in the vehicle 10, etc." (column 17, lines 47-51) In some examples, "the technician at the monitoring center 12 can respond to the information from the vehicle 10. For example, the monitoring center 12 can provide directions, dispatch mechanical assistance, a tow truck, police, fire or ambulatory assistance, or assist the vehicle's occupants with other assistance. During the entire process the monitoring center 12 maintains continual verbal contact with the vehicle's occupants and obtains continual location data to monitor the vehicle's location in real time." (column 13, lines 53-58)

Hillman differs not only in scale, but differs also in communications mechanisms and protocols. Hillman describes how a vehicle such as a car with a tracking and security system can save power by powering off its GPS receiver and its cellular receiver. When the GPS receiver and the cellular receiver are powered on, the vehicle and its occupant can receive services. Because Hillman differs so much in terms of scale, one of skill in the art in the cable modem industry would not look to the GPS industry for inspiration. More specifically, Hillman talks about activations windows in terms of tens of minutes. The only example describe is "the wake-up windows are roughly 2 minutes long and occur at 20-minute intervals." (column 17, line 37) Hillman also talks about drift in terms of minutes per week. "Thus, for example, if the clock in the vehicle drifts by up to .+-.2 min per week…"

This scale and type of communication mechanism would not work in the cable modem context. Cable modem artisans typically do not have familiarity with vehicle tracking and

security systems. Even if they were to look in this nonanalogous art area and found Hillman, the Hillman reference would not work in the cable modem context as the scales and protocols used are impracticable.

Claims 23-27 were rejected because the Examiner argues that the computer code is not sufficiently embodied on a computer readable medium. The claims 23-27 are believed appropriately tangible and concrete, as a computer readable medium as described in the specification and has been inferred to mean a memory, disk, flash, etc. on a computer system. However, Applicants have amended claim 23 to recite computer code embodied on a computer readable medium to facilitate prosecution. The rejection to claims 23-27 is believed overcome. It is respectfully submitted that the amendment to claim 23 should be entered because it does not require any new search and does not present an undue burden on the Examiner.

In light of the above remarks relating to independent claims the remaining dependent claims are believed allowable for at least the reasons noted above. Applicants believe that all pending claims are allowable. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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